



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,817	03/19/2004	Stanley S. Toncich	109934-85	7082
27189	7590	09/27/2004	EXAMINER	
PROCOPIO, CORY, HARGREAVES & SAVITCH LLP			TAKAOKA, DEAN O	
530 B STREET			ART UNIT	
SUITE 2100			PAPER NUMBER	
SAN DIEGO, CA 92101			2817	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,817

Applicant(s)

TONCICH, STANLEY S.

Examiner

Dean O Takaoka

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/19/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION**Double Patenting**

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 18 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of prior U.S. Patent No. 6,727,786. This is a double patenting rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 6 and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of

Art Unit: 2817

U.S. Patent No. 6,727,786. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 and 6 of the current application comprise the limitations in claim 1 of U.S. Patent No. 6,727,786. Claims 1 and 16 of the current application comprise the limitations in claim 2 of U.S. Patent No. 6,727,786.

Specification

The disclosure is objected to because of the following informalities:

Brief Description of the Drawings: (page 6)

i) It appears Fig. 4 (824Mhz) of the specification corresponds to Fig. 6 in the drawings, Fig. 5 (849MHz) of the specification corresponds to Fig. 7 in the drawings, Fig. 6 (1850Mhz) of the specification corresponds to Fig. 4 in the drawings, and Fig. 7 (1910MHz) of the specification corresponds to Fig. 5 in the drawings.

ii) Fig. 8 is not included in the Brief Description of the Drawings section in the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 – 5, 7 – 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sroka (AAPA) in view of Yamada et al. (AAPA) and Tsuda (AAPA); Applicant's admitted prior art (AAPA) submitted in Applicant's IDS dated March 19, 2004.

Claim 1:

Sroka (best illustrated in Fig. 6) shows a tunable electromagnetic filter comprising: an electromagnetic resonator (1); an impedance element (14); a tunable component coupled to the filter (varactor diode 9); and a tuning control signal generator (shown as ports 11, 19' where the ports are disclosed as voltage control inputs, thus obviously a tuning control signal generator applied to the ports, col. 4, lines 33-34 and col.5, lines 45-46).

Sroka does not show a switchable resonator comprising a switching control signal for generating a switching signal coupled to the switch or that the tunable components comprising well-known tunable varactor diodes are well-known art-recognized equivalent tunable ferroelectric capacitors.

Yamada et al. (Fig. 1) shows a similar electromagnetic filter comprising a switchable resonator (12, 13) and a switching control signal for generating a switching signal coupled to the switch (Vc1).

Tsuda also shows a similar electromagnetic filter where well-known voltage tunable ferromagnetic capacitors of the prior art (Figs. 28, 30a) are replaced by well-known art-recognized voltage tunable varactor diodes (53 – Fig. 5).

Art Unit: 2817

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the tunable electromagnetic filter disclosed by Sroka with the switching resonator disclosed by Yamada et al. and the ferromagnetic capacitors disclosed by Tsuda et al. The modification of Yamada et al. would have realized the obvious advantageous benefit of providing a switchable electromagnetic device in which both frequency of an attenuation pole and the attenuation bandwidth can be varied (abstract – Yamada et al.). The further modification of Tsuda et al. would have been a mere substitution of well-known art-recognized equivalent voltage tunable components thus suggesting the obviousness of the modifications.

Claim 3:

Further comprising a voltage source (11 – Fig. 6; Sroka) coupled to the component (9 – Fig. 6; Sroka).

Claim 4:

Comprising a ferroelectric capacitor (where Tsuda et al. teaches the ferroelectric capacitor, discussed above in the reasons for rejection of claim 1).

Claim 5:

Further comprising a voltage source coupled to the switch (Vc1 – Yamada et al.).

Claim 7:

Further comprising a second resonator (2 – Fig.6; Sroka) coupled to the first resonator (1) and where the impedance element is coupled between the first and second (2) resonators.

Claim 8:

An input capacitor (5) coupled to the input port of the filter (6) and the second end of the capacitor coupled to impedance element (14) and the first resonator (1); and an output capacitor (7) coupled to the output port of the filter (8) and the second end of the capacitor coupled to impedance element (14) and the second resonator (2).

Claim 9:

Comprising a second tunable ferroelectric component couple to the filter (varactor 15).

Claim 10:

Where the impedance element, input capacitor and output capacitor comprise a third thru fifth tunable ferroelectric component respectively.

The combination of Tsuda et al., discussed above in the reasons for rejection of claim 1, teaches the ferroelectric component. While Skora shows four varactors (Fig. 6), hence four ferroelectric components by substitution of Tsuda et al., Skora further teaches that the filter may comprise more than two resonators which may all be tunable (col. 6, lines 58-68), thus obviously comprising a third thru fifth ferroelectric component. Tsuda et al. further exemplifies the plurality of voltage tunable components in (Fig. 23).

Claim 11:

Art Unit: 2817

Where the first and second resonator comprise monoblock resonators (1, 2 – Fig. 2; Skora).

Claim 12:

Where the filter resonates at a frequency between about 1850 and 1910 MHz (Tsuda shows 1900 MHz – Fig. 6 which is about 1930 MHz, the term “about” being an open term not defined by the claim, further where Tsuda et al. teaches 1.9GHz is for PHS frequencies).

Claim 13:

Where the filter resonates at a frequency between about 1930 and 1990 MHz (Tsuda shows 1900 MHz – Fig. 6 which is about 1930 MHz, the term “about” being an open term not defined by the claim, further where Tsuda et al. teaches 1.9GHz is for PHS frequencies).

Claim 14:

Where the filter resonates at a frequency between about 824 and 849 MHz (Skora shows 856 MHz – Fig. 7 which is about 849 MHz, the term “about” being an open term not defined by the claim).

Claim 15:

Where the filter resonates at a frequency between about 869 and 894 MHz (Skora shows 912 MHz – Fig. 7 which is about 894MHz, the term “about” being an open term not defined by the claim).

Claim 17:

Where the filter resonates in a quarter wave mode (Skora – col. 6, lines 49-50).

Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Sroka, Yamada et al., and Tsuda as applied to claim 1 above, and further in view of Kwon et al. (AAPA); Applicant's admitted prior art (AAPA) submitted in Applicant's IDS dated March 19, 2004.

Claim 2:

Sroka, Yamada et al., and Tsuda teach the filter, discussed in the reasons for rejection of claim 1 above.

Sroka, Yamada et al., and Tsuda teach the well-known voltage tunable ferroelectric component but do not teach the switch being a well-known art-recognized equivalent microelectro mechanical switch.

Kwon et al. shows a similar switching filter arrangement replacing the well-known voltage tunable varactor diode with a well-known art-recognized voltage tunable equivalent MEMs capacitor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the voltage tunable ferroelectric component disclosed by Sroka, Yamada et al., and Tsuda with the well-known art-recognized equivalent MEMs capacitor disclosed by Kwon et al. Such a modification would have been a mere substitution of well-known art-recognized equivalent voltage tunable components thus suggesting the obviousness of the modification.

Conclusion

Art Unit: 2817

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean O Takaoka whose telephone number is (571) 272-1772. The examiner can normally be reached on 8:30a - 5:00p Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



dot
September 22, 2004